

What is claimed is

1. An electronic device comprising:

a user interface having

a display for displaying text and

speech synthesiser means including a loudspeaker, arranged to convert an input, dependent upon a text, to an audio output representative of a person reading the text; and

control means, for controlling the display and for providing an input to the speech synthesiser means, arranged to control the display of a text, to provide an input corresponding to the displayed text to the speech synthesiser, and to highlight a portion or portions of the displayed text, wherein the highlighting of a text portion is delayed with respect to the audio output corresponding to the text portion.

2. A device as claimed in claim 1 wherein the control means synchronises the highlighting with the conversion of text to audio output.

3. A device as claimed in claim 1 or 2 wherein the control means varies the highlighting with the conversion of text to audio output.

4. A device as claimed in any preceding claim wherein the control means extends the highlighting through the displayed text with the conversion of text to audio output.

5. A device as claimed in claim 4 wherein the control means unselectively extends the highlighting through all of the text.

6. A device as claimed in claim 4 or 5, wherein the extending of highlighting through a text portion lags the conversion of the text portion to audio output by the delay.

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7. A device as claimed in any one of claims 4 to 6, wherein the highlighting extends discontinuously by portions of text corresponding to a word or words.

8. A device as claimed in any preceding claim wherein the control means highlights a text portion for a limited duration.

9. A device as claimed in claim 8 wherein the highlighting isolates a portion or portions of text from a body of text, the initiation of the isolation of text lagging the conversion of the text to audio output by the delay and the isolation being maintained for the limited duration.

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10 A device as claimed in any preceding claim wherein the dimension of the highlighted portion is variable.

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11. A device as claimed in any preceding claim wherein the dimension of the highlighted portion is a constant number of words long.

12. A device as claimed wherein the display displays the full sentence of text being converted.

13. A device as claimed in any preceding claim wherein the display displays the previous predetermined plurality of words that have been converted.

14. A device as claimed in any preceding claim further comprising a dictionary, wherein the control means highlights words not in the dictionary.

15. A device as claimed in claim 14 wherein the control means provides different highlighting for the words not in the dictionary.

16. A device as claimed in any preceding claim wherein the control means is arranged to identify proper nouns in the text, and highlight them.

17. A device as claimed in claim 16 wherein the control means provides different highlighting for the proper nouns in the text.

18. A device as claimed in any preceding claim wherein the synthesiser means provides signals to the control means to effect the highlighting of specific words.

19. A device as claimed in claim 18 wherein the control means provides different highlighting to the specific words.

20. A device as claimed in any preceding claim wherein highlighting may comprise any one of : contrast variation of the text and/or display background; colour variation of the text and/or display background; reformatting of the text including underscoring, bold font, italic font, capitalisation, changing font size or type; and enclosing text in geometric shapes.

21. A device as claimed in any preceding claim wherein the delay corresponds to a number of converted words or syllables.

22. A device as claimed in any preceding claim wherein the delay corresponds to a fixed time.

23. A device as claimed in any preceding claim wherein the delay is greater than 0.1 seconds.

24. A device as claimed in any preceding claim wherein the delay is less than 3 seconds.

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25. A device as claimed in any preceding claim wherein the electronic device is a document reader or a hand-held communications device.

26.A hand-held radio communications device comprising:

5 a user interface having:

a display for displaying text and

speech synthesiser means including a loudspeaker, arranged to convert an input, dependent upon a text, to an audio output representative of a person reading the text; and control means for controlling the display and for providing an input to the speech synthesiser means, arranged to control the display of a text, to provide an input corresponding to the displayed text to the speech synthesiser, and to highlight a portion or portions of the displayed text, wherein the highlighting of a text portion is delayed with respect to the audio output corresponding to the text portion.

27. A document reader comprising a user interface having:

a display for displaying text and

speech synthesiser means including a loudspeaker, arranged to convert an input, dependent upon a text, to an audio output representative of a person reading the text; and control means for controlling the display and for providing an input to the speech synthesiser means, arranged to control the display of a text, to provide an input corresponding to the displayed text to the speech synthesiser, and to highlight a portion or portions of the displayed text, wherein the highlighting of a text portion is delayed with respect to the audio output corresponding to the text portion.

28. A car having a device as claimed in claim 26 or a document reader as claimed in claim 27, wherein the display is mounted for use by the driver.

29. A device or circuitry substantially as hereinbefore described with reference to the accompanying figures and/or as shown in the figures.

30. A method for displaying text and providing speech synthesis of the text comprising the steps of:

displaying the text;

converting a text portion to audio output;

determining that the text portion should be highlighted;

delaying; and then

highlighting the text portion.

31. An electronic device comprising:

a user interface having:

a display for displaying text and

speech synthesiser means including a loudspeaker, arranged to convert an input, dependent upon a text, to an audio output representative of a person reading the text; and

control means, for controlling the display and for providing an input to the speech synthesiser means, arranged to control the display of a text, to provide an input corresponding to the displayed text to the speech synthesiser, and to delay the display of a text portion with respect to the audio output corresponding to the text portion.

32. A method for displaying text and providing speech synthesis of the text comprising the steps of:

converting a text portion to audio output;

delaying; and then

displaying the text;

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